

LD1-40-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCT	GGG	AGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	R	S	L	
	AGA	CTC	TCC	TGT	ATA	GCG	TCT	GGA	TTC	ACC	CTC	AGG	AAT	TAT	GCC	ATG	CAC	TGG	108
	R	L	S	C	I	A	S	G	F	T	L	R	N	Y	A	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	GGT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	G	I	W	F	D	
	GGA	AGT	AAC	AAA	AAC	TAT	GCA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	216
	G	S	N	K	N	Y	A	D	S	V	K	G	R	F	T	I	S	R	
	GAC	AAT	TCC	AAG	AAC	ACG	CTG	TAT	CTG	CAA	CTG	AAC	AGC	CTG	AGA	GAC	GAG	GAC	270
	D	N	S	K	N	T	L	Y	L	Q	L	N	S	L	R	D	E	D	
	ACG	GCT	GTG	TAT	TAT	TGT	GCG	AGA	GAG	CGA	GCA	GCA	CGT	GGT	ATT	TCT	AGG	TTC	324
	T	A	V	Y	Y	C	A	R	E	R	A	A	R	G	I	S	R	F	
	TAT	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	GTC	TCC	CCA	3'	
	Y	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	P		

[illegible]

Fig. 1b

## LD1-40-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGC	GAC	AGA	GTC	ACC
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	AGG	AGC	CAT	TTG	AAT	TGG	TAT	CAG	CAG
	I	T	C	R	A	S	Q	S	I	R	S	H	L	N	W	Y	Q	Q
	← CDR1 →																	
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	TTG	CTG	ATC	TAT	GGT	GCG	TCC	ACT	TTG	CAA	AGT
	K	P	G	K	A	P	K	L	L	I	Y	G	A	S	T	L	Q	S
	GGC	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGC	TCT	GGG	GCA	GTT	TTC	ACT	CTC	ACC
	G	V	P	S	R	F	S	G	S	G	S	G	A	V	F	T	L	T
	ATC	GCC	AGT	CTA	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	GAG	AGT	TAC
	I	A	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	E	S	Y
	AGT	AAT	CCT	CTA	ATC	ACC	TTC	GGC	CAA	GGG	ACA	CGA	CTG	GAG	ACT	AAA	3'	
	S	N	P	L	I	T	F	G	Q	G	T	R	L	E	T	K		
	← CDR3 →																	
	← CDR2 →																	

G6T2T0" Eth24T60

Fig. 2a

## LD1-52-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GAA	GCG	TCT	GGA	TTC	GCC	CTC	AGA	AGT	TCT	GGC	ATG	CAC	TGG	108
	R	L	S	C	E	A	S	G	F	A	L	R	S	S	G	M	H	W	
	GTC	CGC	CAG	GCT	CCT	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	CTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	L	I	W	F	D	
	GGA	AGT	ATC	AGA	TCG	TAT	GCA	GAA	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	216
	G	S	I	R	S	Y	A	E	S	V	K	G	R	F	T	I	S	R	
	GAC	ACT	TCC	AAG	AAC	ACC	CTA	TAT	CTC	CAA	ATG	CGC	AGT	CTG	AGT	GCC	GAC	GAC	270
	D	T	S	K	N	T	L	Y	L	Q	M	R	S	L	S	A	D	D	
	ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGA	GAC	AAG	GCG	GTT	CGG	GGA	ATT	AGC	AGG	TAC	324
	T	A	V	Y	Y	C	A	R	D	K	A	V	R	G	I	S	R	Y	
	AAC	TAT	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1 ← →

CDR2 ← →

CDR3 ← →

09/147443-010

09/147443

Fig. 2b

## LD1-52-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AAC	ATT	ATC	CGC	TAT	TTA	AAT	TGG	TAT	CAG	CAG	
	I	T	C	R	A	S	Q	N	I	I	R	Y	L	N	W	Y	Q	Q	
	← CDR1 →																		
	AAG	CCA	GGG	AAA	GCC	CCT	AGG	CTC	CTG	ATC	TAT	GGT	GCG	TCC	ACT	TTG	CAA	AGT	
	K	P	G	K	A	P	R	L	L	I	Y	G	A	S	T	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AGT	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	← CDR3 →																		
	CGT	ACC	CCT	CCA	TTC	ACT	TTC	GGC	CCT	GGG	ACC	AAA	GTG	GAG	ATC	AAA		3'	
	R	T	P	P	F	T	F	G	P	G	T	K	V	E	I	K			

09147443

Fig. 3a

## LD1-84-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GAA	GCG	TCT	GGA	TTC	ACC	CTC	AGA	AGT	TCT	GGC	ATG	CAC	TGG	
	R	L	S	C	E	A	S	G	F	T	L	R	S	S	G	M	H	W	
	GTC	CGC	CAG	GCT	CCT	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	CTT	ATA	TGG	TTT	GAT	
	V	R	Q	A	P	G	K	G	L	E	W	V	A	L	I	W	F	D	
	GGA	AGT	ATC	AGA	TCG	TAT	GCA	GAA	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	
	G	S	I	R	S	Y	A	E	S	V	K	G	R	F	T	I	S	R	
	GAC	ACT	TCC	AAG	AAC	ACC	CTA	TAT	CTC	CAA	ATG	CGC	AGT	CTG	AGT	GCC	GAC	GAC	
	D	T	S	K	N	T	L	Y	L	Q	M	R	S	L	S	A	D	D	
	ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGA	GAC	AAG	GCG	GTT	CGG	GGA	ATT	AGC	AGG	TAC	
	T	A	V	Y	Y	C	A	R	D	K	A	V	R	G	I	S	R	Y	
	AAC	TAT	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1: 153-162 (ATA TGG TTT GAT)  
 CDR2: 225-234 (TCC AAG AAC ACC)  
 CDR3: 333-342 (TAC ATG GAC GTC)

09147443-0119

Fig. 3b

## LD1-84-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	ATA	GGA	GAC	AGA	GTC	ACC	
	V	M	T	Q	S	P	S	S	L	S	A	S	I	G	D	R	V	T	
	ATC	ACC	TGC	CGG	GCA	AGT	CAG	AGT	ATC	ATC	AGG	TAT	TTG	AAT	TGG	TAT	CAG	CAC	
	I	T	C	R	A	S	Q	S	I	I	R	Y	L	N	W	Y	Q	H	
	← CDR1 →																		
	AAA	CCA	GGA	AAA	GCC	CCT	AAA	CTC	CTC	ATC	TTT	GCT	GCA	TCG	AAT	TTG	CAA	ACT	
	K	P	G	K	A	P	K	L	L	I	F	A	A	S	N	L	Q	T	
	GGG	GTC	CCA	TCC	AGG	TTC	AGT	GGC	AGT	GGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AGT	GAC	CTG	CAG	CCT	GAG	GAT	TTC	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	
	I	S	D	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	AGT	AGG	CCG	TTC	ACT	TTT	GGC	CGG	GGG	ACC	AGC	CTG	GAC	ATC	AAA	3'			
	S	R	P	F	T	F	G	R	G	T	S	L	D	I	K				
	← CDR3 →																		

09/147443

Fig. 4a

## LD1-110-VH sequence

	9					18			27			36			45			54	
5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCT	GGG	AGG	TCC	CTG	
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	R	S	L	
	63					72			81			90			99			108	
	AGA	CTC	TCC	TGT	ATA	GCG	TCT	GGA	TTC	ACC	CTC	AGG	AAT	TAT	GCC	ATG	CAC	TGG	
	R	L	S	C	I	A	S	G	F	T	L	R	N	Y	A	M	H	W	
	117					126			135			144			153			162	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	GGT	ATA	TGG	TTT	GAT	
	V	R	Q	A	P	G	K	G	L	E	W	V	A	G	I	W	F	D	
	171					180			189			198			207			216	
	GGA	AGC	AAC	AAA	AAC	TAT	GCA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	
	G	S	N	K	N	Y	A	D	S	V	K	G	R	F	T	I	S	R	
	CDR2																		
	225					234			243			252			261			270	
	GAC	AAC	TCC	AAG	AAC	ACT	CTG	TTT	CTG	CAC	ATG	AAC	AGC	CTG	AGA	GCC	GAG	GAC	
	D	N	S	K	N	T	L	F	L	H	M	N	S	L	R	A	E	D	
	279					288			297			306			315			324	
	ACG	GCT	ACA	TAT	TAC	TGT	GCG	AGA	GAG	AGG	GCG	ATT	CGG	GGA	ATC	AGT	AGA	TAC	
	T	A	T	Y	Y	C	A	R	E	R	A	I	R	G	I	S	R	Y	
	333					342			351			360			369			378	
	AAT	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		
	CDR3																		

66T2T0" 044449

09/147443

Fig. 4b

## LD1-110-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	CGA	AGC	TCT	TTA	AAT	TGG	TAT	CAG	CAG
	I	T	C	R	A	S	Q	S	I	R	S	S	L	N	W	Y	Q	Q
	AAA	CCA	GGG	AAA	GCC	CCT	AAA	GTC	CTG	ATC	TAT	GCT	GCA	TCC	AGT	TTG	CAA	AGT
	K	P	G	K	A	P	K	V	L	I	Y	A	A	S	S	L	Q	S
	GGG	GTC	CCA	TCC	AGG	TTC	AGT	GGC	AGA	GGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC
	G	V	P	S	R	F	S	G	R	G	S	G	T	D	F	T	L	T
	ATC	AGC	AGT	CTG	CAG	CCT	GAA	GAT	TTT	GCG	ACT	TAT	TAT	TGT	CAA	CAG	AGT	TCC
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	S
	AGT	TCC	TCG	TGG	ACG	TTC	GGC	CAA	GGG	ACC	AAG	GTG	GAA	ATC	AAA	3'		
	S	S	S	W	T	F	G	Q	G	T	K	V	E	I	K			

CDR1 ← →

CDR2 ← →

CDR3 ← →

09/147443 "C442T60"



Fig. 5a

## LD1-117-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCA	GGA	GGA	GGC	GTG	GTC	CAG	CCT	GGG	AAG	TCC	CTG	
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	K	S	L	
			63			72			81			90			99			108	
	AGA	CTT	TCC	TGT	GCA	GCG	TCT	GGA	TTC	AGT	TTC	AAT	AGC	CAT	GGC	ATG	CAC	TGG	
	R	L	S	C	A	A	S	G	F	S	F	N	S	H	G	M	H	W	
													← CDR1 →						
	GTC	CGC	117			126			135			144			153			162	
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
													← CDR2 →						
	GGC	AGT	171			180			189			198			207			216	
	G	S	N	K	Y	Y	A	D	S	V	K	G	R	F	T	I	T	R	
						CDR2 →													
	GAC	AAC	225			234			243			252			261			270	
	D	N	S	K	N	T	L	Y	L	Q	M	N	S	L	R	A	E	D	
	ACG	GCT	279			288			297			306			315			324	
	T	A	V	Y	Y	C	A	R	E	T	S	V	R	L	G	Y	S	R	
									← CDR3 →										
	TAC	AAT	333			342			351			360			369			378	
	Y	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	I	S	S	3'
						CDR3 →													

09147443

LD1-117-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	54
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	AGG	AGC	CAT	TTG	AAT	TGG	TAT	CAG	CAG	108
	I	T	C	R	A	S	Q	S	I	R	S	H	L	N	W	Y	Q	Q	
	<div style="text-align: center;"> <span style="font-size: 1.2em;">←</span> CDR1 <span style="font-size: 1.2em;">→</span> </div>																		
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	CTC	CTG	ATC	TAT	GCT	GCA	TCC	AGT	TTG	CAA	GGT	162
	K	P	G	K	A	P	K	L	L	I	Y	A	A	S	S	L	Q	G	
	<div style="text-align: center;"> <span style="font-size: 1.2em;">←</span> CDR2 <span style="font-size: 1.2em;">→</span> </div>																		
	GGG	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	216
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AGC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAT	TAC	TGT	CAA	CAG	AGT	TAC	270
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	<div style="text-align: center;"> <span style="font-size: 1.2em;">←</span> CDR3 <span style="font-size: 1.2em;">→</span> </div>																		
	AGG	GCC	CCT	CAG	TGG	ACG	TTC	GGC	CAA	GGG	ACC	AAG	GTG	GAA	ATC	AAA	3'		
	R	A	P	Q	W	T	F	G	Q	G	T	K	V	E	I	K			

[illegible]

09/147443

Fig. 6a

## LD2-1-VH sequence

5'			9			18			27			36			45			54
	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L
			63			72			81			90			99			108
	AGA	CTC	TCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	CTC	AGG	AGT	TAT	GGC	ATG	CAC	TGG
	R	L	S	C	V	A	S	G	F	T	L	R	S	Y	G	M	H	W
			117			126			135			144			153			162
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGC	CTG	GAG	TGG	GTG	GCT	TTT	ATA	TGG	TTT	GAT
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D
			171			180			189			198			207			216
	GGA	AGT	AAT	AAA	GGA	TAT	GTA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	CGA
	G	S	N	K	G	Y	V	D	S	V	K	G	R	F	T	I	S	R
			225			234			243			252			261			270
	GAC	AAT	TCC	AAG	AAC	ATG	GTC	TAT	CTG	CAA	ATG	AAC	AGC	CTG	AGA	GCC	GAT	GAC
	D	N	S	K	N	M	V	Y	L	Q	M	N	S	L	R	A	D	D
			279			288			297			306			315			324
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	CTT	CGG	GGA	ATC	AGC	AGA	TAC
	T	A	V	Y	Y	C	A	R	E	K	A	L	R	G	I	S	R	Y
			333			342			351			360			369			
	AAC	TAT	TAC	CTG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'
	N	Y	Y	L	D	V	W	G	K	G	T	T	V	T	V	S	S	

← CDR1 →

← CDR2 →

CDR2 →

← CDR3 →

← CDR3 →

667220" E44474150

Fig. 6b

## LD2-1-VL sequence

5'	GTG	GTG	9 ACT	CAG	CCA	18 CCC	TCA	GCG	27 TCT	GGG	ACC	36 CCC	GGA	CAG	45 AGG	GTC	ACC	54 ATC
	V	V	T	Q	P	P	S	A	S	G	T	P	G	Q	R	V	T	I
	TCT	TGT	63 TCT	GGA	AGC	72 AAC	TCC	ATC	81 CTT	GGA	AGT	90 AAG	TAT	GTA	99 TAC	TGG	TAC	108 CAG
	S	C	S	G	S	N	S	I	L	G	S	K	Y	V	Y	W	Y	Q
	← CDR1 →																	
	AAA	CTC	117 CCA	GGA	ACG	126 GCC	CCC	AAA	135 CTC	CTC	ATC	144 TAT	AAG	AAT	153 GAT	CAG	CGG	162 CCC
	K	L	P	G	T	A	P	K	L	L	I	Y	K	N	D	Q	R	P
	← CDR2 →																	
	TCA	GGG	171 GTC	TCT	GAC	180 CGA	TTC	TCT	189 GGC	TCC	AAG	198 TCT	GGC	ACC	207 TCG	GCC	TCC	216 CTG
	S	G	V	S	D	R	F	S	G	S	K	S	G	T	S	A	S	L
→	GCC	ATC	225 AGT	GGG	CTC	234 CGG	TCC	GAG	243 GAT	GAG	GCT	252 GAC	TAT	TAC	261 TGT	GCA	CCA	270 TGG
	A	I	S	G	L	R	S	E	D	E	A	D	Y	Y	C	A	P	W
	GAT	GCC	279 AAC	CTG	GGT	288 GGC	CCG	GTG	297 TTC	GGC	GGA	306 GGG	ACC	AAG	315 CTG	ACC	GTC	324 CTA
	D	A	N	L	G	G	P	V	F	G	G	G	T	K	L	T	V	L
	← CDR3 →																	
	AGT	CAG	333 CCC	3'														
	S	Q	P															

09/147443

Fig. 7a

## LD2-4-VH sequence

5'			9			18			27			36			45			54
	CAG	GTG	AAA	CTG	CTC	GAG	TCG	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L
			63			72			81			90			99			108
	AGA	CTC	TCC	TGT	GAA	GCG	TCT	GGA	TTC	ACC	CTC	AGA	AGT	TCT	GGC	ATG	CAC	TGG
	R	L	S	C	E	A	S	G	F	T	L	R	S	S	G	M	H	W
			117			126			135			144			153			162
	GTC	CGC	CAG	GCT	CCT	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	CTT	ATA	TGG	TTT	GAT
	V	R	Q	A	P	G	K	G	L	E	W	V	A	L	I	W	F	D
			171			180			189			198			207			216
	GGA	AGT	ATC	AGA	TCG	TAT	GCA	GAA	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA
	G	S	I	R	S	Y	A	E	S	V	K	G	R	F	T	I	S	R
			225			234			243			252			261			270
	GAC	ACT	TCC	AAG	AAC	ACC	CTA	TAT	CTC	CAA	ATG	CGC	AGT	CTG	AGT	GCC	GAC	GAC
	D	T	S	K	N	T	L	Y	L	Q	M	R	S	L	S	A	D	D
			279			288			297			306			315			324
	ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGA	GAC	AAG	GCG	GTT	CGG	GGA	ATT	AGC	AGG	TAC
	T	A	V	Y	Y	C	A	R	D	K	A	V	R	G	I	S	R	Y
			333			342			351			360			369			
	AAC	TAT	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S	

657270" CH44F60

Fig. 7b

## LD2-4-VL sequence

5'	GTG	ATG	9			CAG	TCT	18			CCA	TCC	TCC	27		CTG	TCT	GCA	36		TCT	GTA	GGA	45		GAC	AGA	GTC	54		ACC	
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T														
	ATC	ACT	63			TGC	CGG	ACA	72			AGT	CAG	ACC	81		ATT	AGC	AGA	90		AAT	TTA	AAT	99		TGG	TAT	CAG	108		CAG
	I	T	C	R	T	S	Q	T	I	S	R	N	L	N	W	Y	Q	Q														
	← CDR1 →																															
	AAA	CCA	117			GGG	AAA	GCC	126			CCT	AAG	CTC	135		CTG	ATC	TAT	144		GCT	ACA	TCC	153		AGT	TTG	CAA	162		AGT
	K	P	G	K	A	P	K	L	L	I	Y	A	T	S	S	L	Q	S														
																		← CDR2 →														
	GGG	GTC	171			CCA	TCA	AGG	180			TTC	AGT	GGC	189		AGT	GGA	TCT	198		GGG	ACA	GAT	207		TTC	ACT	CTC	216		ACC
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T														
	ATC	AAT	225			AGT	CTA	CAA	234			CCT	GAA	GAT	243		TTT	GCA	ACT	252		TAC	TAC	TGT	261		CAA	CAG	AGT	270		TAC
	I	N	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y														
																		← CDR3 →														
	ACT	ACC	279			CCT	TCG	TTC	288			GGC	CAA	GGG	297		ACC	AAG	GTG	306		GAA	ATC	AAA	315					3'		
	T	T	P	S	F	G	Q	G	T	K	V	E	I	K																		

09147443

Fig. 8a

## LD2-5-VH sequence

5'	9					18					27					36					45					54				
	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	TTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG												
	Q	V	K	L	L	E	S	G	G	G	L	V	Q	P	G	G	S	L												
	63					72					81					90					99					108				
	AGA	CTC	TCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TTC	AGG	AGT	TAT	GGC	ATG	CAC	TGG												
	R	L	S	C	V	A	S	G	F	T	F	R	S	Y	G	M	H	W												
	117					126					135					144					153					162				
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGC	CTG	GAG	TGG	GTG	GCT	TTT	ATA	TGG	TTT	GAT												
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D												
	171					180					189					198					207					216				
	GGA	AGT	AAT	AAA	GGA	TAT	GTA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	CGA												
	G	S	N	K	G	Y	V	D	S	V	K	G	R	F	T	I	S	R												
	CDR2																													
	225					234					243					252					261					270				
	GAC	AAT	TCC	AAG	AAC	ATG	CTC	TAT	CTG	CAA	ATG	AAT	AGC	CTG	AGA	GCC	GAG	GAC												
	D	N	S	K	N	M	L	Y	L	Q	M	N	S	L	R	A	E	D												
	279					288					297					306					315					324				
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	CTT	CGG	GGA	ATC	AGT	AGA	TAC												
	T	A	V	Y	Y	C	A	R	E	K	A	L	R	G	I	S	R	Y												
	333					342					351					360					369					378				
	AAC	TAT	TAC	CTG	GAC	GTC	TGG	GGC	AAG	GGG	GCC	ACG	GTC	ACC	GTC	TCC	TCA	3'												
	N	Y	Y	L	D	V	W	G	K	G	A	T	V	T	V	S	S													
	CDR3																													

09/147443"CTTCTT60

Fig. 8b

LD2-5-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	ATA	GGC	GAC	AGA	GTC	ACC	
	V	M	T	Q	S	P	S	S	L	S	A	S	I	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	GTT	ACC	AGG	TCT	TTA	AAT	TGG	TAT	CAG	CAG	
	I	T	C	R	A	S	Q	S	V	T	R	S	L	N	W	Y	Q	Q	
	AAA	CCA	GGG	AAA	GCC	CCT	AGG	CTC	CTA	ATC	TTT	GCT	GCG	TCC	ACT	TTG	CAA	AGT	
	K	P	G	K	A	P	R	L	L	I	F	A	A	S	T	L	Q	S	
	GGG	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGA	TCT	GGG	ACA	GAT	TTC	ACC	CTC	ACC	
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AGC	AGT	CTG	CAA	CCT	GAG	GAT	TTT	GGA	ACT	TAC	TAC	TGT	CAA	CAG	AAT	TAC	
	I	S	S	L	Q	P	E	D	F	G	T	Y	Y	C	Q	Q	N	Y	
	AGG	ACC	CCT	CAG	TGG	ACG	TTC	GGC	CAA	GGG	ACC	AAG	GTA	GAA	ATC	AAA			
	R	T	P	Q	W	T	F	G	Q	G	T	K	V	E	I	K			

CDR1 →

← CDR2

← CDR3 →

09/147443



Fig. 9a

## LD2-10-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	CTC	AGG	AGT	TAT	GGC	ATG	CAC	TGG	108
	R	L	S	C	V	A	S	G	F	T	L	R	S	Y	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGC	CTG	GAG	TGG	GTG	GCT	TTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
	GGA	AGT	AAT	AAA	GGA	TAT	GTA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	CGA	216
	G	S	N	K	G	Y	V	D	S	V	K	G	R	F	T	I	S	R	
	GAC	AAT	TCC	AAG	AAC	ATG	GTC	TAT	CTG	CAA	ATG	AAC	AGC	CTG	AGA	GCC	GAT	GAC	270
	D	N	S	K	N	M	V	Y	L	Q	M	N	S	L	R	A	D	D	
	ACG	GCT	GTA	TAT	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	CTT	CGG	GGA	ATC	AGC	AGA	324
	T	A	V	Y	Y	Y	C	A	R	E	K	A	L	R	G	I	S	R	
	TAC	AAC	TAT	TAC	CTG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	378
	Y	N	Y	Y	L	D	V	W	G	K	G	T	T	V	T	V	S	S	3'

CDR1: 99-108  
 CDR2: 144-162  
 CDR3: 333-342

09147443-012199

09/147443

Fig. 9b

## LD2-10-VL sequence

5'	GTG	GTG	ACT	CAG	GAG	CCC	TCA	CTG	ACT	GTG	TCC	CCA	GGA	GGG	ACA	GTC	ACT	CTC	
	V	V	T	Q	E	P	S	L	T	V	S	P	G	G	T	V	T	L	
	ACC	TGT	GCT	TCC	AGC	ACT	GGG	GCA	GTC	ACC	AGG	GGT	TAC	TAT	CCA	AAC	TGG	TTC	
	T	C	A	S	S	T	G	A	V	T	R	G	Y	Y	P	N	W	F	
	← CDR1 →																		
	CAG	CAG	AAG	CCT	GGA	CAA	GCA	CCC	AGG	GCA	CTG	ATT	TAT	AGT	ACA	AAC	AAA	AAA	
	Q	Q	K	P	G	Q	A	P	R	A	L	I	Y	S	T	N	K	K	
	← CDR2 →																		
	CAC	TCC	TGG	ACC	CCT	GCC	CGG	TTC	TCA	GGC	TCC	CTC	CTT	GGG	GGC	AAA	GCT	GCC	
	H	S	W	T	P	A	R	F	S	G	S	L	L	G	G	K	A	A	
	CTG	ACA	CTG	TCA	GGT	GTG	CAG	CCT	GAA	GAC	GAG	GCT	GAA	TAT	TAC	TGC	CTG	CTC	
	L	T	L	S	G	V	Q	P	E	D	E	A	E	Y	Y	C	L	L	
	TAC	TAT	GGT	GGT	GCT	CAA	CTC	GTA	TTC	GGC	GGA	GGG	ACC	AAG	CTG	ACC	GTC	CTA	
	Y	Y	G	G	A	Q	L	V	F	G	G	G	T	K	L	T	V	L	
	← CDR3 →																		
	CGT	CAG	CCC															3'	
	R	Q	P																

09/147443" C444T50

Fig. 10a

## LD2-11-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCG	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GAA	GCG	TCT	GGA	TTC	ACC	CTC	AGA	AGT	TCT	GGC	ATG	CAC	TGG	108
	R	L	S	C	E	A	S	G	F	T	L	R	S	S	G	M	H	W	
	GTC	CGC	CAG	GCT	CCT	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	CTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	L	I	W	F	D	
	GGA	AGT	ATC	AGA	TCG	TAT	GCA	GAA	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	216
	G	S	I	R	S	Y	A	E	S	V	K	G	R	F	T	I	S	R	
	GAC	ACT	TCC	AAG	AAC	ACC	CTA	TAT	CTC	CAA	ATG	CGC	AGT	CTG	AGT	GCC	GAC	GAC	270
	D	T	S	K	N	T	L	Y	L	Q	M	R	S	L	S	A	D	D	
	ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGA	GAC	AAG	GCG	GTT	CGG	GGA	ATT	AGC	AGG	TAC	324
	T	A	V	Y	Y	C	A	R	D	K	A	V	R	G	I	S	R	Y	
	AAC	TAT	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1 ← →

CDR2 ← →

CDR3 ← →

66T20" E4424T60

Fig. 10b

## LD2-11-VL sequence

5'	GTG	TTG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	ATA	CGA	GAC	AGA	GTC	ACC	54
	V	L	T	Q	S	P	S	S	L	S	A	S	I	R	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AAC	ATT	GGC	AGT	TAT	TTA	AAT	TGG	TAT	CAG	CAC	108
	I	T	C	R	A	S	Q	N	I	G	S	Y	L	N	W	Y	Q	H	
	AAA	CCA	GGG	ACA	GCC	CCT	AAA	CTC	CTG	ATC	TAT	GCT	GTA	TCC	GCT	TTG	CAA	AGT	162
	K	P	G	T	A	P	K	L	L	I	Y	A	V	S	A	L	Q	S	
	GGG	GTC	CCA	TCG	AGG	TTC	AGT	GGC	AGT	AGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	216
	G	V	P	S	R	F	S	G	S	R	S	G	T	D	F	T	L	T	
	ATC	AGC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	270
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	AGT	CCC	CCG	TAC	ACT	TTC	GGC	CAG	GGG	ACC	AAC	CTG	CAG	ATC	AAA				3'
	S	P	P	Y	T	F	G	Q	G	T	N	L	Q	I	K				
	CDR3 →																		
	← CDR1 →																		
	← CDR2 →																		

09/147443

Fig. 11a

## LD2-14-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	GTC	GCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TTC	AGG	AAT	TTT	GGC	ATG	CAC	TGG	
	R	V	A	C	V	A	S	G	F	T	F	R	N	F	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCT	TTT	ATT	TGG	TTT	GAT	
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
	GCA	AGT	AAT	AAA	GGA	TAT	GGA	GAC	TCC	GTT	AAG	GGC	CGA	TTC	ACC	GTC	TCC	AGA	
	A	S	N	K	G	Y	G	D	S	V	K	G	R	F	T	V	S	R	
	GAC	AAT	TCC	AAG	AAC	ACG	CTC	TAT	CTG	CAA	ATG	AAC	GGC	CTG	AGA	GCC	GAA	GAC	
	D	N	S	K	N	T	L	Y	L	Q	M	N	G	L	R	A	E	D	
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	GTT	CGG	GGA	ATT	AGT	AGA	TAC	
	T	A	V	Y	Y	C	A	R	E	K	A	V	R	G	I	S	R	Y	
	AAC	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1: 99-108  
 CDR2: 144-162  
 CDR3: 333-369

09147443-012199

09/147443

Fig. 11b

## LD2-14-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTG	GGA	GAC	AGA	GTC	ACC	54
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	ATC	AAC	AAT	TTA	AAT	TGG	TAT	CAG	CAG	108
	I	T	C	R	A	S	Q	S	I	I	N	N	L	N	W	Y	Q	Q	
	← CDR1 →																		
	AAA	CCA	GGC	AAA	GCC	CCT	GAA	CTC	CTG	ATC	TAT	GCT	GCA	TCC	AGT	TTG	CAA	AGT	162
	K	P	G	K	A	P	E	L	L	I	Y	A	A	S	S	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCT	TCA	AGG	TTC	CGT	GGC	AGT	GGA	TCT	GGG	AGA	GAT	TTC	ACT	CTC	ACC	216
	G	V	P	S	R	F	R	G	S	G	S	G	R	D	F	T	L	T	
	GTC	ACC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	270
	V	T	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	← CDR3 →																		
	AGT	ACC	CTG	TGG	ACG	TTC	GGC	CAA	GGG	ACC	AAG	GTG	GAA	ATC	AAA	3'			
	S	T	L	W	T	F	G	Q	G	T	K	V	E	I	K				

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Fig. 12a

## LD2-17-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TTC	AGG	AGT	TAT	GGC	ATG	CAC	TGG	108
	R	L	S	C	V	A	S	G	F	T	F	R	S	Y	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGC	CTG	GAG	TGG	GTG	GCT	TTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
	GGA	AGT	AAT	AAA	GGA	TAT	GTA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	CGA	216
	G	S	N	K	G	Y	V	D	S	V	K	G	R	F	T	I	S	R	
	GAC	AAT	TCC	AAG	AAC	ACG	CTC	TAT	CTG	CAA	ATG	AAG	AGC	CTG	AGA	GCC	GAG	GAC	270
	D	N	S	K	N	T	L	Y	L	Q	M	K	S	L	R	A	E	D	
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	CTT	CGG	GGA	ATC	AGT	AGA	TAC	324
	T	A	V	Y	Y	C	A	R	E	K	A	L	R	G	I	S	R	Y	
	AAC	TAT	TAC	CTG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	L	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1: 99-108  
CDR2: 153-162  
CDR3: 333-342

09147443-0149

Fig. 12b

LD2-17-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TTC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	54
	V	M	T	Q	S	P	F	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AAC	ATT	AGG	AGT	TTT	TTA	AGT	TGG	TAT	CAG	CAG	108
	I	T	C	R	A	S	Q	N	I	R	S	F	L	S	W	Y	Q	Q	
	← CDR1 →																		
	AAA	CCA	GGG	ACA	GCC	CCT	AAG	CTC	CTG	ATC	TAT	GCT	GCA	TCC	AGG	TTG	CAA	AGT	162
	K	P	G	T	A	P	K	L	L	I	Y	A	A	S	R	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGG	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	216
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AGC	ACT	CTG	CAA	CCT	GAA	GAT	TTT	GCG	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	270
	I	S	T	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	AGT	GCC	CCT	TGG	ACG	TTC	GGC	CAA	GGG	ACC	AAG	CTG	GAA	ATC	AAA	3'			
	S	A	P	W	T	F	G	Q	G	T	K	L	E	I	K				
	← CDR3 →																		

09147443-012199



Fig. 13a

## LD2-20-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TCC	AGG	AGT	TAT	GGC	ATG	CAC	TGG	108
	R	L	S	C	V	A	S	G	F	T	S	R	S	Y	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGC	CTG	GAG	TGG	GTG	GCT	TTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
	GGA	AGT	AAT	AAA	GGA	TAT	GTA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	CGA	216
	G	S	N	K	G	Y	V	D	S	V	K	G	R	F	T	I	S	R	
	GAC	AAT	TCC	AAG	AAC	ACG	CTC	TAT	CTG	CAA	ATG	AAG	AGC	CTG	AGA	GCC	GAG	GAC	270
	D	N	S	K	N	T	L	Y	L	Q	M	K	S	L	R	A	E	D	
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	CTT	CGG	GGA	ATC	AGT	AGA	TAC	324
	T	A	V	Y	Y	C	A	R	E	K	A	L	R	G	I	S	R	Y	
	AAC	TAT	TAC	CTG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	L	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1 ← →

CDR2 ← →

CDR3 ← →

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Fig. 13b

## LD2-20-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	54
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	AGC	AGC	TAT	TTA	AAT	TGG	TAT	CAG	CAG	108
	I	T	C	R	A	S	Q	S	I	S	S	Y	L	N	W	Y	Q	Q	
	← CDR1 →																		
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	CTC	CTG	ATC	TAT	GCT	GCA	TCC	AGT	TTG	CAA	AGT	162
	K	P	G	K	A	P	K	L	L	I	Y	A	A	S	S	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	216
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AGC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	270
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	AGT	ACC	CGA	TTC	ACT	TTC	GGC	CCT	GGG	ACC	AAA	GTG	GAT	ATC	AAA	3'			
	S	T	R	F	T	F	G	P	G	T	K	V	D	I	K				
	← CDR3 →																		

66T2T0" CH424T60

Fig. 14a

## LD1-6-17-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCT	GGG	AGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	R	S	L	
	AGA	CTT	TCC	TGT	GCA	GCG	TCT	GGA	TTT	ACC	TTC	AGT	AGC	TAT	GGC	ATG	CAC	TGG	108
	R	L	S	C	A	A	S	G	F	T	F	S	S	Y	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	GAT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	D	I	W	F	D	
	GGA	GGT	AAT	AAA	CAT	TAT	GCA	GAC	TTC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	216
	G	G	N	K	H	Y	A	D	F	V	K	G	R	F	T	I	S	R	
	GAC	AAT	TCC	AAG	AAC	ACG	GTG	TAT	CTA	CAA	ATG	AAC	AGC	CTG	AGA	GTC	GAG	GAC	270
	D	N	S	K	N	T	V	Y	L	Q	M	N	S	L	R	V	E	D	
	ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGG	GAT	TAC	TAT	AGC	GTT	ACT	AAG	AAA	CTC	AGA	324
	T	A	V	Y	Y	C	A	R	D	Y	Y	S	V	T	K	K	L	R	
	CTC	CAC	TAC	TAC	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	GTC	378
	L	H	Y	Y	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	
	TCC	TCA	3'																
	S	S																	

667270" CH4760

Fig. 14b

## LD1-6-17-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	54
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	GGC	ATT	AGA	AAT	GAT	TTA	ACC	TGG	TAT	CAG	CAA	108
	I	T	C	R	A	S	Q	G	I	R	N	D	L	T	W	Y	Q	Q	
	← CDR1 →																		
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	CTC	CTG	ATC	TAT	GCT	GCA	TCC	AAT	TTA	CAA	AGT	162
	K	P	G	K	A	P	K	L	L	I	Y	A	A	S	N	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCA	TCA	AGG	TTC	AGC	GGC	AGT	GGA	TCT	GGC	ACA	GAT	TTC	ACT	CTC	ACC	216
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AGC	AGC	CTG	CAG	CCT	GAA	GAT	TTT	GCA	ACT	TAT	TAC	TGT	CTA	CAA	GAT	AAC	270
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	L	Q	D	N	
	AAT	TTC	CCG	TAC	ACT	TTT	GGC	CAG	GGG	ACC	AAG	CTG	GAG	ATC	AAA	3'			
	N	F	P	Y	T	F	G	Q	G	T	K	L	E	I	K				
	← CDR3 →																		

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Fig. 15a

## LD1/2-6-3-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L
	AGA	GTC	GCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TTC	AGG	AAT	TTT	GGC	ATG	CAC	TGG
	R	V	A	C	V	A	S	G	F	T	F	R	N	F	G	M	H	W
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCT	TTT	ATT	TGG	TTT	GAT
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D
	GCA	AGT	AAT	AAA	GGA	TAT	GGA	GAC	TCC	GTT	AAG	GGC	CGA	TTC	ACC	GTC	TCC	AGA
	A	S	N	K	G	Y	G	D	S	V	K	G	R	F	T	V	S	R
	GAC	AAT	TCC	AAG	AAC	ACG	CTC	TAT	CTG	CAA	ATG	AAC	GGC	CTG	AGA	GCC	GAA	GAC
	D	N	S	K	N	T	L	Y	L	Q	M	N	G	L	R	A	E	D
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	GTT	CGG	GGA	ATT	AGT	AGA	TAC
	T	A	V	Y	Y	C	A	R	E	K	A	V	R	G	I	S	R	Y
	AAC	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S	

CDR1: 99-108  
 CDR2: 153-162  
 CDR3: 333-342

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Fig. 15b

## LD1/2-6-3-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	ATC	AGA	TAT	TTA	AAT	TGG	TAT	CAG	CAC	
	I	T	C	R	A	S	Q	S	I	I	R	Y	L	N	W	Y	Q	H	
	← CDR1 →																		
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	CTC	CTG	ATC	CAT	ACT	GCA	TCC	AGT	TTG	CAA	AGT	
	K	P	G	K	A	P	K	L	L	I	H	T	A	S	S	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCG	TCA	AGG	TTC	AGT	GGC	AGT	GTA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	
	G	V	P	S	R	F	S	G	S	V	S	G	T	D	F	T	L	T	
	ATC	AGC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	ACT	ACC	CCG	TAC	ACT	TTT	GGC	CAG	GGG	ACC	AAG	CTG	CAG	ATC	AAA	3'			
	T	T	P	Y	T	F	G	Q	G	T	K	L	Q	I	K				
	← CDR3 →																		

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Fig. 16a

## LD1/2-6-33-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	GTC	GCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TTC	AGG	AAT	TTT	GGC	ATG	CAC	TGG	108
	R	V	A	C	V	A	S	G	F	T	F	R	N	F	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCT	TTT	ATT	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
	GCA	AGT	AAT	AAA	GGA	TAT	GGA	GAC	TCC	GTT	AAG	GGC	CGA	TTC	ACC	GTC	TCC	AGA	216
	A	S	N	K	G	Y	G	D	S	V	K	G	R	F	T	V	S	R	
	GAC	AAT	TCC	AAG	AAC	ACG	CTC	TAT	CTG	CAA	ATG	AAC	GGC	CTG	AGA	GCC	GAA	GAC	270
	D	N	S	K	N	T	L	Y	L	Q	M	N	G	L	R	A	E	D	
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	GTT	CGG	GGA	ATT	AGT	AGA	TAC	324
	T	A	V	Y	Y	C	A	R	E	K	A	V	R	G	I	S	R	Y	
	AAC	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1: 99-108  
 CDR2: 153-162  
 CDR3: 333-342

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Fig. 16b

## LD1/2-6-33-VL sequence

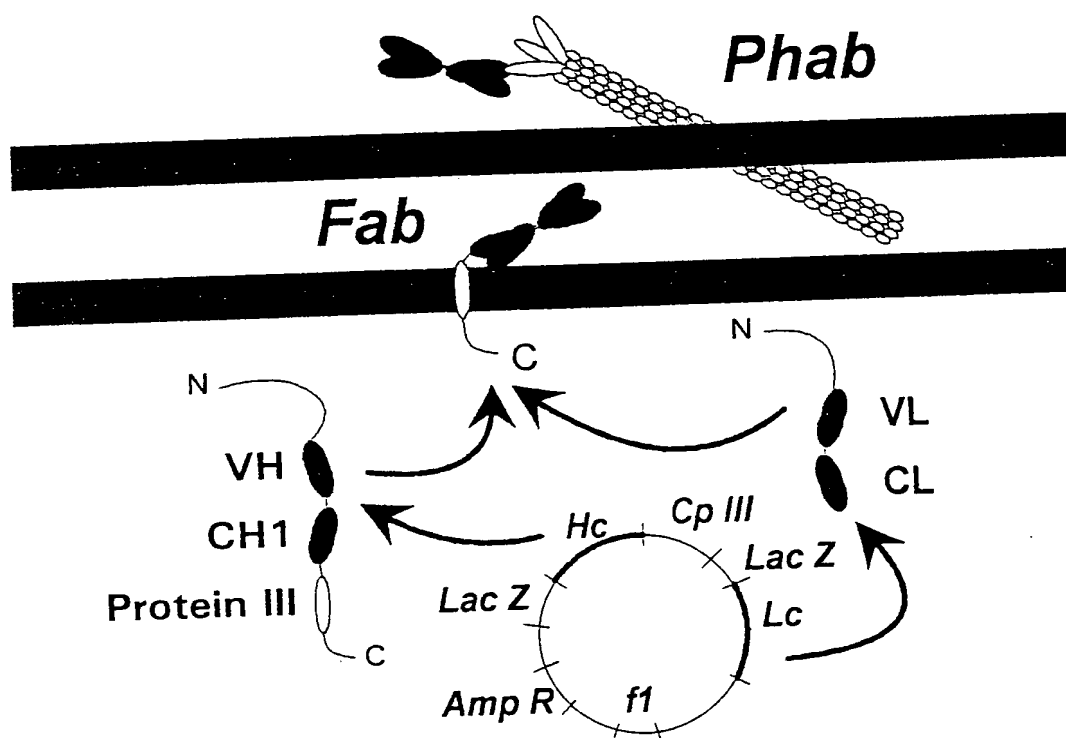
5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TTC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	
	V	M	T	Q	S	P	S	F	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	ATC	AGA	TAT	TTA	AAT	TGG	TAT	CAG	CAC	
	I	T	C	R	A	S	Q	S	I	I	R	Y	L	N	W	Y	Q	H	
	← CDR1 →																		
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	CTC	CTG	ATC	CAT	GCT	GCA	TCC	AGT	TTG	CAA	AGT	
	K	P	G	K	A	P	K	L	L	I	H	A	A	S	S	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCG	TCA	AGG	TTC	AGT	GGC	AGT	GTA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	
	G	V	P	S	R	F	S	G	S	V	S	G	T	D	F	T	L	T	
	ATC	AGC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	ACT	ACC	CCG	TAC	ACT	TTT	GGC	CAG	GGG	ACC	AAG	CTG	CAG	ATC	AAA	3'			
	T	T	P	Y	T	F	G	Q	G	T	K	L	Q	I	K				
	← CDR3 →																		

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Fig. 17

# The pComb3 Expression System



09/147443-ETD-000000

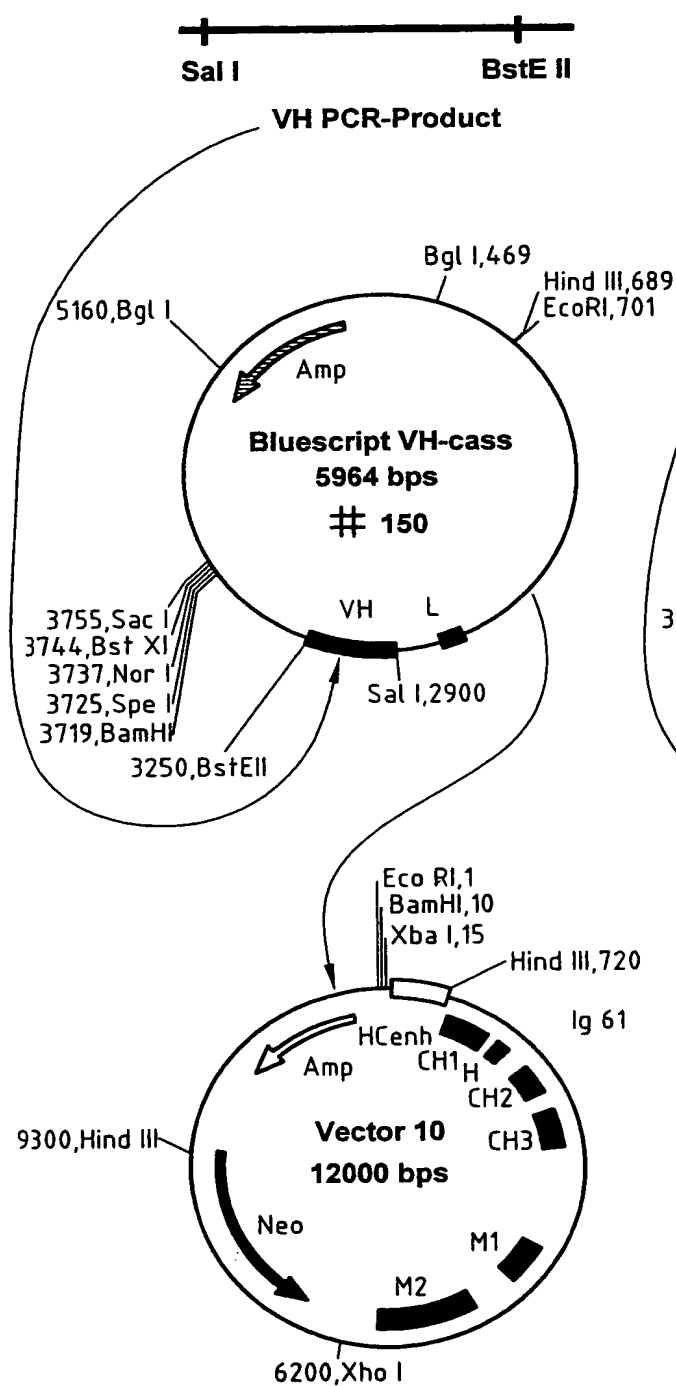


FIG. 18

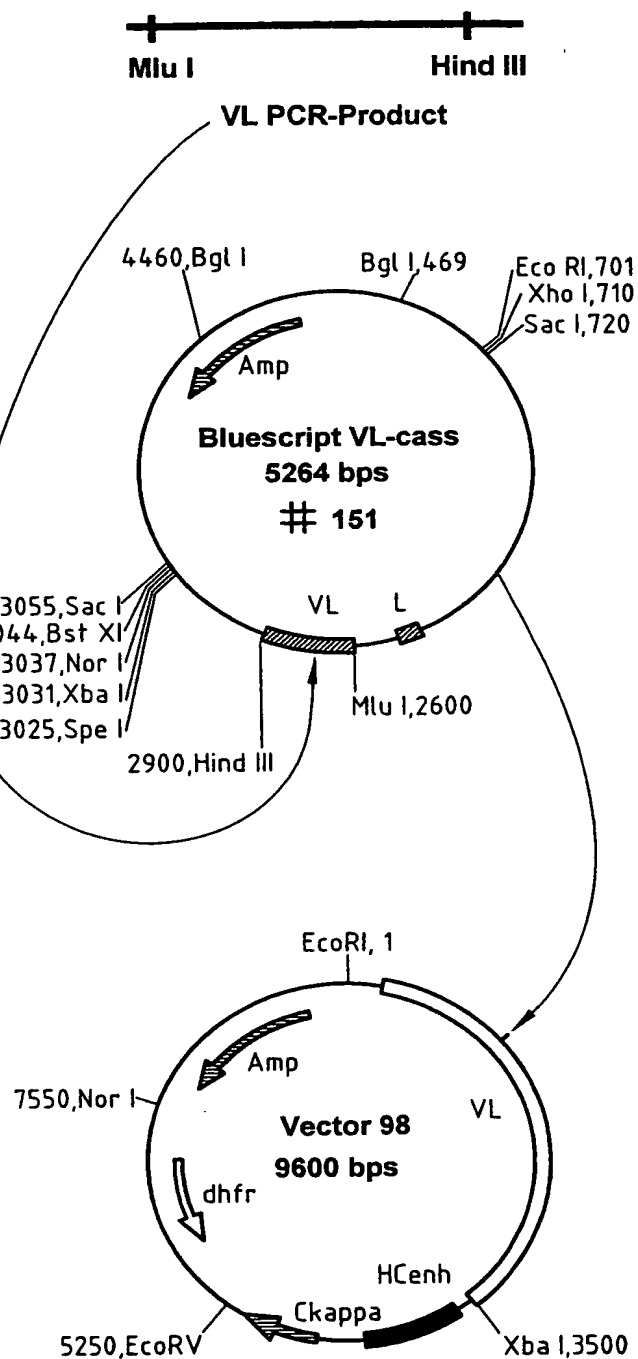


FIG. 19